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Contents

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The Business Situation

Recent business statistics have continued to indicate some slowing in the economy's rate of growth, although continued strength is expected in some key sectors. Industrial production has declined in each month since July, and residential construction activity has fallen since the beginning of 1969. In addition, consumer buying has been sluggish, and November retail sales were little changed from the levels of last spring. The price picture, however, shows no real slowing in rates of increase, and recent wage settlements are bound to result in significant boosts in unit wage costs. The outlook for the economy is rather mixed. Housing has been under downward pressure as a result of tight financing conditions, and auto production schedules have been cut back. Nevertheless, enactment of the tax reform bill, which includes a cut in the surcharge rate from 10 percent to 5 percent for the first six months of 1970 and elimination of the surcharge thereafter as well as an increase in social security benefits, will have a strongly stimulative influence on consumer income. Furthermore, most recent capital spending surveys point to rapid increases in plant and equipment purchases well into 1970.

PRODUCTION AND CONSTRUCTION

The Federal Reserve Board's index of industrial production declined in November for the fourth consecutive month, dropping by 1.2 percent to a seasonally adjusted level of 171.1 percent of the 1957-59 average. This was the largest monthly decline since the 1960 recession, but approximately one half of the November fall was attributable to the strike of about 150,000 workers at the General Electric Corporation. The cumulative decrease in output from the July peak amounts to about 2 percent, approximately the same percentage decline that had occurred in the first quarter of the 1967 mini-recession.

The General Electric strike had its major impact in the business equipment sector, where output fell in November after expanding at an annual rate of almost 7 percent in the first ten months of 1969. In view of the strength of near-term capital spending plans, however, growth of output in this sector could well return to a rapid pace after settlement of the strike. After edging down from July to October, the production of materials registered a sizable decline in November. This largely reflected reductions in output of electronic components (General Electric) and auto parts included in the materials index. Iron and steel output, which grew rapidly in the first half of 1969, has remained about constant at the level it fell to in August. While seasonally adjusted data on steel ingot production indicate that output in December was up slightly, iron and steel industry observers say that production may soon be cut in response to reduced demand from the auto sector.

Consumer goods output fell 0.7 percent in November chiefly because of a large drop in the output of automotive products. Several major auto producers cut overtime and shut down for several days in order to reduce inventories. On a unit basis, car assemblies dropped off sharply from a seasonally adjusted annual rate of 8.4 million in October to 7.9 million in November. Moreover, General Motors and Chrysler had additional shutdowns in December, and total domestic auto assemblies on a seasonally adjusted basis declined further to 7.2 million units. First-quarter 1970 production schedules of these two producers have also been cut back. The General Electric strike was another important factor in the November decline of consumer goods production.

Residential construction has been under severe downward pressure, as mortgage market conditions have become steadily tighter. Private nonfarm housing starts in November at 1.27 million housing units, on a seasonally adjusted annual basis, were almost 15 percent below the 1968 average. Starts in all types of housing and in all regions except the South decreased in that month. The short-term outlook is for continued downward pressure on the residential construction sector. The number of newly issued local building permits for private housing units has dropped at about the same percentage rate as actual housing starts: the November level was almost 14 percent below the 1968 average; in addition, the dollar value of residential construction contracts, as reported by F. W. Dodge, dropped in November and the average level from June to November was 10 percent below the average in the first half of 1969. However, the increase in the legal ceiling rate on mortgages insured by the Federal Housing Authority and those guaranteed by the Veterans Administration from 7½ percent to 8½ percent, combined with a large backlog of unutilized building permits, may have a favorable effect on housing starts in the forty states that do not have legal maximum interest rates applicable to Government-backed mortgages.

Chart I
INVENTORY-SALES RATIOS
Months of sales; seasonally adjusted

Note: The ratios for wholesale and retail are plotted through October. The ratio for total manufacturing is plotted through November.
Source: United States Department of Commerce, Bureau of the Census.

ORDERS, INVENTORY ACCUMULATION, AND CAPITAL SPENDING

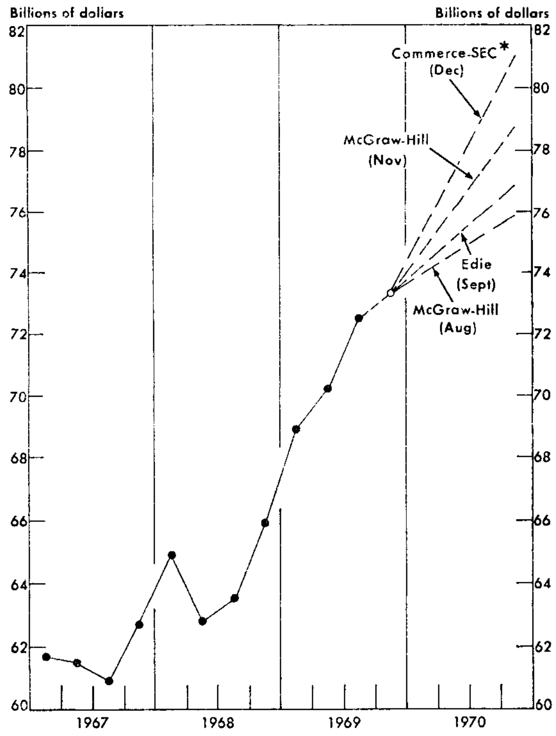
New orders received by manufacturers of durable goods have, on the average, been trending upward, although during 1969 the growth rate was somewhat less rapid than in 1967 and 1968. Moreover, since prices have risen substantially, the 1969 increase in the volume of orders in real terms has been considerably less than the increase in dollar volume. In November the orders series fell $0.7 billion despite an increase of $0.3 billion in defense bookings. Monthly figures are often volatile, but November declines were widespread, with electrical machinery, auto, and primary metals manufacturers experiencing exceptionally large reductions in the inflow of orders.

Although total business inventories have been rising at rates which appear pretty much in line with total sales growth, this has not been true for all sectors (see Chart I). In October, total manufacturing and trade inventories advanced $1.4 billion, with both manufacturing and retail levels continuing their rapid rates of accumulation. At the manufacturing level, there was a sizable increase in sales and the inventory-sales ratio registered a slight decline. November data on the manufacturing sector, however, indicate that sales fell 1 percent entirely because of a decline in durables shipments. Meanwhile, inventories rose $450 million, again all in the durables category, and the inventories-sales ratio increased but remained well within the range of recent years. Moreover, at the wholesale level, inventory accumulation has been negligible and the inventory-sales ratio has been relatively low lately. Data for retail stores in recent months, however, suggest some imbalance between inventories and sales. For both durables and nondurables retailers, inventories since the summer have been greater, relative to sales, than in the past few years. In the auto industry, where sales have been particularly weak, dealers' stocks have been rising at a fast pace since July, and the inventory-sales ratio for other durables is higher than at the beginning of 1969. At retail outlets for nondurable goods the October surge in sales caused a fairly significant drop in the inventory-sales ratio, but the ratio still suggests the existence of surplus inventories.

Despite falling profits and exceptionally tight conditions in money and capital markets, businessmen are currently undertaking and planning for enormous amounts of plant and equipment investment. The Department of Commerce and the Securities and Exchange Commission revised upward their estimate of fourth-quarter plant and equipment expenditures, and an increase from the third quarter is now indicated rather than the leveling expected earlier. According to this estimate, plant and equipment spending in 1969 was $71.3 billion, 11.2 percent above the 1968 rate. Furthermore, as the end of 1969 approached, successive surveys of capital spending have tended to forecast increasingly higher plant and equipment outlays for 1970 (see Chart II). In August, the McGraw-Hill survey projected 1970 expenditures of $74.9 billion. Lionel D. Edie & Co., Inc. estimated, in September, that 1970 expenditures would average $75.5 billion. In October, the McGraw-Hill fall survey reported business plant and equipment purchases of $76.7 billion for 1970, and in December the latest Commerce-SEC survey projected $78.1 billion for 1970, a 9.7 percent increase over the 1968 level. An earlier Commerce-SEC report indicated that growth in the first half of 1970 would be particularly strong. While some of the increase in expenditures will undoubtedly be absorbed by the higher prices that are anticipated, this estimate nevertheless implies that plant and equipment purchases in real terms will be substantially above the boom levels of 1969. According to McGraw-Hill, the advance in real spending reflects businessmen's desires to cut steeply rising unit production costs by modernization as well as their carryover of some unfulfilled 1969 plans into 1970. Of course, not all sectors are planning equally large expenditure increases. Commerce-SEC indicated that it was the nonmanufacturing sector that was planning a more rapid expansion, with public utilities—currently under severe capacity constraints—planning a 15 percent annual jump in plant and equipment expenditures. In the manufacturing sector, purchases are expected to rise at a slower rate than they did in 1969, but record-level investment spending will still be undertaken. While manufacturers appear to have ample capacity, they report expectations of fast demand growth in 1970 and thereafter.

Chart II

ACTUAL AND ANTICIPATED PLANT AND EQUIPMENT SPENDING



*The November Commerce-SEC survey indicated that most of the growth is slated for the first half of the year rather than being spent evenly throughout the year as shown in this chart.

Sources: United States Department of Commerce, Securities and Exchange Commission, McGraw-Hill, Inc., and Lionel D. Edie & Co., Inc.

EMPLOYMENT, PERSONAL INCOME, AND RETAIL SALES

Although the unemployment rate in November and December at 3.4 percent was close to record-low levels, other indicators suggest some easing in labor market conditions. In November the percentage of covered persons receiving unemployment insurance benefits rose and the index of help-wanted advertising fell. The decline in average hours worked also suggests eased conditions: the average workweek for factory workers fell 0.3 hours to 40.5 hours in October and edged up slightly in December, while overtime hours in November were down for the second consecutive month. Furthermore, according to the payroll survey, employment has been growing more slowly in recent months. Nonagricultural employment, which was increasing at the fast rate of 238,000 persons per month during the first half of the year, has been rising by only 57,000 persons per month since June.

Personal income has been growing at a considerably slower rate in recent months, reflecting major work stoppages as well as easier labor market conditions and declining corporate profits. In the first half of 1969, personal income increased at an annual rate of 8½ percent, whereas since June the rate has been about 6½ percent. During November the General Electric strike reduced incomes by $1 billion and the net rise in total personal income was only $3.2 billion. However, even after adjustment for the effects of the strike, there appears to have been some slowing of the growth rate in October-November. Lately wage and salary income increases, in particular, have moderated, as gains in the number of payroll jobs have become smaller and the average workweek has fallen.

Another indication of slowing in the economy is the volume of retail sales, which has shown no significant change since the spring. Sales rose 1 percent in October, then declined a bit to $29.5 billion in November, a level only about ½ percent above that registered in the spring. Since December 1968, dollar volume has increased only 4.2 percent, less than the 5 percent rise in consumer goods prices. While the dollar volume of nondurables sales was about constant in November, durables sales turned down, with almost all the decline attributable to a fall in automotive group sales. On a seasonally adjusted annual basis, domestic new car sales were 8.3 million units in November, down from 8.4 million in October, and the data show a further decline in new car sales to 7.7 million units in December. Preliminary December data for total retail sales indicate little change from November. The outlook for consumer demand is unclear. While the Michigan Survey Research Center reported the third consecutive quarterly decline in the index of consumer sentiment, the new tax and social security provisions will certainly bolster consumer income and perhaps also consumer eagerness to buy.

Despite the current slowing of economic expansion, prices have continued to increase rapidly at both consumer and wholesale levels. Consumer price rises have been excessively large, averaging 6.0 percent (annual rate) in 1969 through November as compared with 4.7 percent in 1968 and 3.1 percent in 1967. There appears to be no real slowing of price increases, although some comparisons may suggest a moderation. From June to November, the consumer price index has risen at an average annual rate of 5.5 percent, lower than the 6.3 percent rate experienced in the first half of 1969. The average annual rate of price increase in the last six months for which data are available (May through November), however, is about the same as in the first five months of 1969. Moreover, consumer prices were rising at a 6.5 percent rate in November.

At the wholesale level, also, recent price advances have been large. Wholesale industrial prices rose at a 4.2 percent annual rate in December, resulting in an average annual rate of change in prices of 4.9 percent during the fourth quarter of 1969. The overall rise in 1969 was 4.0 percent, compared with 2.6 percent in 1968 and 1.8 percent in 1967.

Meanwhile, rising wages and lagging productivity continue to put upward pressure on prices. In the manufacturing sector, labor cost per man-hour rose at an annual rate of almost 4 percent in November, while output per man-hour fell 4 percent; hence, the labor cost of producing a unit of output increased at an annual rate of 8 percent. Rapid rises in the labor cost of production have been common in recent months: from June to November, unit labor cost in manufacturing increased at a rate of 7 percent, compared with only 2 percent in the first half of 1969. Moreover, recent and prospective large wage settlements will undoubtedly result in a significant rise of unit labor costs in 1970.

The Money and Bond Markets in December

The pressure of monetary restraint continued to be felt in the money and bond markets during December, when interest rates on many instruments climbed to record highs. Quotes on prime four- to six-month dealer-placed paper and ninety-day bankers' acceptances rose ⅜ percentage point, and rates on most maturities of directly placed commercial paper also advanced. The effective rate on Federal funds averaged 8.9 percent, up from its 8.7 percent level in November, but net borrowed reserves declined somewhat during December.

Following a brief rally in the first week of December, prices of long-term Governments fell sharply and broke through the previous record lows established the month before. Prices were also down on most other Treasury notes and bonds, but these remained above the low levels reached in early October until unexpectedly heavy selling for tax losses developed throughout the Government bond market on December 29. Despite a rebound on the succeeding two days, several of the high-coupon issues with intermediate maturities closed the month below their October lows. The price declines on long-term issues in December were generally 1$\frac{1}{16}$ to 2¾ points, while most intermediate-term issues were down 1 to 2⅞ points. The only price rises among coupon issues during the month were on maturities within eight months.

The Treasury bill market also came under fire during December, largely as a result of restrained investor interest and a sizable amount of selling pressure which was particularly intense toward the close of the month. The average issuing rates on new three-, six-, and nine-month bills reached all-time highs during the period, climbing to 8.096, 8.101, and 7.801 percent, respectively. Over the month as a whole, yields on Treasury bills generally increased by 8 to 58 basis points.

On December 2 a triple A-rated corporate issue was priced to yield investors a record 9.10 percent, and the debentures were not only a rapid sellout but also apparently sparked an interest in other new and outstanding issues. Within two days underwriters began to raise prices on subsequent new offerings, and these also met with successful receptions. The rally subsided after about a week, and yields once more began to rise. Rates did not reach the levels set in the early part of the month, however, and were again trending downward as December closed. In the tax-exempt market, successively new record yields occurred through midmonth, after which a somewhat better tone emerged that reflected in part the minimal supply of new offerings scheduled during the holiday period.

BANK RESERVES AND THE MONEY MARKET

Money market conditions remained firm during December though no undue pressures resulted from the quarterly corporate tax payment date. Over the month as a whole the effective rate on Federal funds averaged 8.9 percent, somewhat above the 8.7 percent level in November. Trading in Federal funds displayed the usual pattern of a buildup in rate at the start of each week, as money center banks bid aggressively, and a decline at the close when reserve pressures were reduced somewhat (see Chart I). Daily average excess reserves of member banks increased by $22 million, to $259 million, while borrowings at the discount window were reduced by $87 million. As a result, nationwide net borrowed reserves averaged $867 million in December (see Table I), $108 million less than in the preceding month.

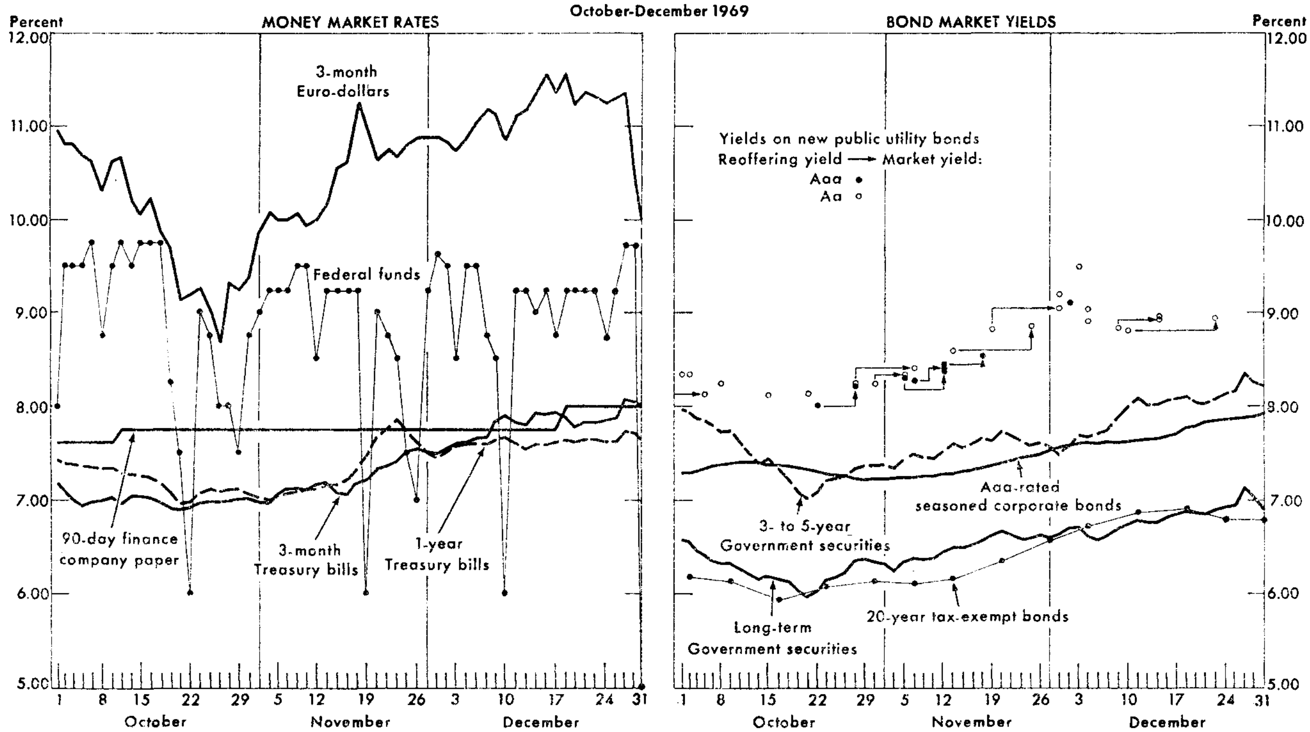
Both the eight New York City banks and the thirty-eight money center banks outside New York experienced a deterioration in their basic reserve positions over the month, and the deficit of the forty-six together totaled $4.9 billion at the end of December (see Chart II). The deterioration was only partly seasonal and, to a large extent, reflected a sizable year-end increase in loans and investments outstanding.

Despite a rise in United States Government and private demand deposits, the average basic deficit at the eight New York City banks climbed by $766 million in the week ended on December 3, as net loans to dealers increased some

Chart I

SELECTED INTEREST RATES

October-December 1969



Note: Data are shown for business days only.

MONEY MARKET RATES QUOTED: Bid rates for three-month Euro-dollars in London; offering rates for directly placed finance company paper; the effective rate on Federal funds (the rate most representative of the transactions executed); closing bid rates (quoted in terms of rate of discount) on newest outstanding three-month and one-year Treasury bills.

BOND MARKET YIELDS QUOTED: Yields on new Aaa- and Aa-rated public utility bonds (arrows point from underwriting syndicate reoffering yield on a given issue to market yield on the same issue immediately after it has been released from syndicate restrictions); daily averages of yields on seasoned Aaa-rated corporate bonds; daily averages of yields on long-term Government securities (bonds due or callable in ten years or more) and on Government securities due in three to five years, computed on the basis of closing bid prices; Thursday averages of yields on twenty seasoned twenty-year tax-exempt bonds (carrying Moody's ratings of Aaa, Aa, A, and Baa).

Sources: Federal Reserve Bank of New York, Board of Governors of the Federal Reserve System, Moody's Investors Service, and The Weekly Bond Buyer.

$400 million and other loans and investments grew by about $750 million on average. A further deepening of the basic deficit at these banks occurred in the following week (see Table II), when the Treasury and private demand depositors ran down their balances by substantial amounts while loans and investments remained at a high level. There was progressive improvement in the basic position of the eight New York City banks during the two weeks ended on December 17 and December 24, resulting chiefly from renewed inflows of United States Government and private demand deposits which more than offset the rising level of loans and investments.

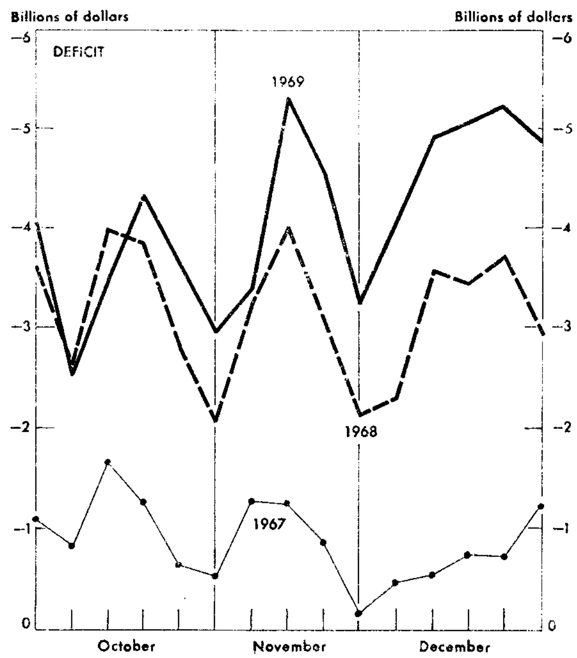
In the final statement week, however, the basic deficit of these banks increased despite an average inflow of almost $1.7 billion in private demand deposits. The worsening resulted from declines in all other liability items combined with increases in all asset categories. Over the month as a whole the deterioration in the basic position of the New York City banks amounted to $891 million.

In contrast to the pattern in New York City, the thirty-eight other money center banks did not increase their loans and investments until the middle of December when quarterly corporate tax payments came due. Nonetheless, their basic deficit showed a continued worsening until the final week of the month. Factors affecting the basic position varied from week to week, but over the month as a whole the primary sources of the deterioration were the increase in loans and investments, a decline in their Euro-dollar holdings, and a rise in required reserves.

System open market operations provided $632 million in reserves on a daily average basis during December primarily through outright transactions and repurchase agreements (see Table I). Market operating factors provided reserves totaling $536 million on a daily average basis, largely the result of an increase in float. A rise in required reserves, however, more than offset this supply of reserves from operating transactions.

The money supply expanded at a seasonally adjusted annual rate of 1.8 percent in December, according to preliminary data, following a rise of 1.2 percent in November. Over the fourth quarter as a whole the money supply grew at a rate of 1.2 percent, and at a rate of 2.5 percent for the year 1969. Total member bank deposits subject to reserve requirements and including Euro-dollar liabilities (the adjusted bank credit proxy) declined at a seasonally adjusted rate of 1.2 percent in December, resulting in a 0.3 percent contraction at an annual rate from the end of the third quarter. For the year as a whole the adjusted bank credit proxy fell by 1.7 percent.

Chart II
BASIC RESERVE POSITION OF MAJOR MONEY MARKET BANKS



Note: Calculation of the basic reserve position is illustrated in Table II.

THE GOVERNMENT SECURITIES MARKET

Yields moved further upward in most sectors of the market for United States Treasury issues during December. Prices on long-term bonds fell to record lows, and rates on newly auctioned three-, six-, and nine-month bills climbed to all-time highs. Over the month as a whole, yields increased on all Treasury securities except short-term coupon issues. The market was buffeted by a number of forces, however, and the upward pressure on yields was not unrelenting.

During the first week of December, long-term Treasury bonds rose in price by as much as $^{20}/_{32}$ in a spillover from the rally which developed in the market for corporate bonds. Notes and bonds with shorter maturities also showed some improvement at the start of the month. However, prices deteriorated after statements by Federal Reserve governors concerning the need for continued tight monetary policy as well as the unenthusiastic reception given a Federal National Mortgage Association offering.

The market for Treasury notes and bonds underwent price declines in the early part of the next two weeks, establishing record lows for long-term bonds, but rallied at the close of each period. In the week ended on December 12 the market turned sharply lower, at first largely in reaction to selling pressures and to a statement by Governor Robertson that tighter and more painful controls might be required in order to curb inflation. Announcement of another Federal agency offering and investor switching from Government securities into corporates contributed further to the price declines. Toward the close of the week, however, some improvement occurred as a result of professional short covering and the report of a large rise in business inventories during October. Prices again declined in the early days of the week ended on December 19 in response to slackened investor interest and a resurgence of selling pressures from dealers and investors alike. A favorable interpretation of remarks by Chairman-appointee Burns, together with lessened seasonal tax-selling pressures and the report of a drop in orders for durable goods during November, brought about price rises as the week drew to a close. On balance, however, prices of notes and bonds were lower over the two-week period ended on December 19.

Prices of coupon issues registered further declines during the Christmas holiday week in quiet dealer trading with little investment demand. Then, on December 29, prices fell sharply in response to sizable, last-minute tax selling associated in part with changes in the Tax Reform Act awaiting the President's signature. In the wake of the selling, most coupon issues fell to new lows, though a con-

Table I

FACTORS TENDING TO INCREASE OR DECREASE MEMBER BANK RESERVES, DECEMBER 1969

In millions of dollars; (+) denotes increase
(—) decrease in excess reserves

Factors	Changes in daily averages—week ended on Dec. 3	Dec. 10	Dec. 17	Dec. 24	Dec. 31	Net changes
"Market" factors						
Member bank required reserves	— 71	+ 42	— 434	+ 311	— 546	— 698
Operating transactions (subtotal)	— 427	— 193	+ 610	+ 66	+ 480	+ 536
Federal Reserve float	— 183	+ 118	+ 357	+ 559	+ 399	+1,250
Treasury operations*	— 3	— 136	+ 209	— 261	— 165	— 356
Gold and foreign account	— 1	— 15	— 11	+ 6	— 20	— 41
Currency outside banks	— 105	— 135	— 226	— 333	+ 120	— 679
Other Federal Reserve accounts (net)†	— 135	— 25	+ 281	+ 95	+ 144	+ 360
Total "market" factors	— 498	— 151	+ 176	+ 377	— 66	— 162
Direct Federal Reserve credit transactions						
Open market operations (subtotal)	+ 577	+ 197	— 219	— 209	+ 286	+ 632
Outright holdings:						
Government securities	+ 402	+ 172	— 204	— 106	— 19	+ 245
Bankers' acceptances	+ 2	+ 6	+ 3	+ 1	— 1	+ 11
Repurchase agreements:						
Government securities	+ 159	+ 3	— 30	— 81	+ 215	+ 266
Bankers' acceptances	+ 5	+ 6	+ 7	— 12	+ 33	+ 39
Federal agency obligations	+ 9	+ 10	+ 5	— 11	+ 58	+ 71
Member bank borrowings	— 14	+ 6	— 156	+ 51	+ 10	— 103
Other loans, discounts, and advances	—	—	—	—	—	—
Total	+ 563	+ 203	— 375	— 158	+ 296	+ 529
Excess reserves	+ 65	+ 52	— 199	+ 219	+ 230	+ 367
	Daily average levels					
Member bank:						
Total reserves, including vault cash	27,737	27,747	27,982	27,890	28,666	28,004‡
Required reserves	27,534	27,492	27,926	27,615	28,161	27,746‡
Excess reserves	203	255	56	275	505	259‡
Borrowings	1,191	1,199	1,043	1,094	1,104	1,126‡
Free, or net borrowed (—), reserves	— 988	— 944	— 987	— 819	— 599	— 867‡
Nonborrowed reserves	26,546	26,548	26,939	26,796	27,562	26,878‡
Net carry-over, excess or deficit (—)§	90	114	165	92	176	127‡
	Changes in Wednesday levels					
System Account holdings of Government securities maturing in:						
Less than one year	+1,124	— 679	+ 431	+ 25	— 455	+ 446
More than one year	—	—	—	—	—	—
Total	+1,124	— 679	+ 431	+ 25	— 455	+ 446

Note: Because of rounding, figures do not necessarily add to totals.

* Includes changes in Treasury currency and cash.

† Includes assets denominated in foreign currencies.

‡ Average for five weeks ended on December 31, 1969.

§ Not reflected in data above.

Table II

RESERVE POSITIONS OF MAJOR RESERVE CITY BANKS DECEMBER 1969

In millions of dollars

Factors affecting basic reserve positions	Daily averages—week ended on Dec. 3	Dec. 10	Dec. 17	Dec. 24	Dec. 31	Average of five weeks ended on Dec. 31
Eight banks in New York City						
Reserve excess or deficiency (—)*	— 4	90	93	12	102	59
Less borrowings from Reserve Banks	266	293	164	296	319	268
Less net interbank Federal funds purchases or sales (—)	1,065	1,528	1,394	974	1,242	1,241
Gross purchases	2,065	2,231	2,392	2,071	2,204	2,193
Gross sales	1,000	703	998	1,098	961	952
Equals net basic reserve surplus or deficit (—)	—1,334	—1,730	—1,465	—1,258	—1,459	—1,449
Net loans to Government securities dealers	822	563	516	679	768	670
Net carry-over, excess or deficit (—)†	17	16	58	30	31	30
Thirty-eight banks outside New York City						
Reserve excess or deficiency (—)*	— 2	6	— 40	— 60	— 9	— 21
Less borrowings from Reserve Banks	307	264	297	356	334	312
Less net interbank Federal funds purchases or sales (—)	2,397	2,864	3,140	3,576	3,076	3,011
Gross purchases	4,424	4,850	5,017	5,067	4,895	4,851
Gross sales	2,028	1,987	1,877	1,491	1,819	1,840
Equals net basic reserve surplus or deficit (—)	—2,706	—3,122	—3,477	—3,993	—3,419	—3,343
Net loans to Government securities dealers	269	121	97	60	128	135
Net carry-over, excess or deficit (—)†	5	23	28	1	61	24

Note: Because of rounding, figures do not necessarily add to totals.

* Reserves held after all adjustments applicable to the reporting period less required reserves.

† Not reflected in data above.

Table III

AVERAGE ISSUING RATES* AT REGULAR TREASURY BILL AUCTIONS

In percent

Maturities	Weekly auction dates—December 1969: Dec. 1	Dec. 8	Dec. 15	Dec. 19	Dec. 29
Three-month	7.453	7.702	7.920	7.804	8.096
Six-month	7.613	7.803	7.922	7.815	8.101

Maturities	Monthly auction dates—October-December 1969: Oct. 28	Nov. 25	Dec. 23
Nine-month	7.244	7.778	7.801
One-year	7.127	7.592	7.561

* Interest rates on bills are quoted in terms of a 360-day year, with the discounts from par as the return on the face amount of the bills payable at maturity. Bond yield equivalents, related to the amount actually invested, would be slightly higher.

siderable recouping occurred on the final two days of the month.

Improved retail interest in the bill market and optimistic press reports combined to extend the late-November rally into early December. At the weekly auction on December 1 the average issuing rates on new three- and six-month bills were down 2 and 41 basis points, respectively, from their highs set on November 24. The improvement was short-lived, however, and rates on most bills increased from 3 to 16 basis points over the week. Factors contributing to the weaker tone included some foreign account selling and attempts by dealers to pare their inventories in anticipation of the return of a large supply of bills under corporate repurchase agreements on the December 10 dividend date. There was sizable corporate demand for bills with December maturities, though, and these issues registered gains during the first week of the month.

At the next two weekly auctions on December 8 and December 15, record rates were set on the new issues of three-month bills. Rates on the six-month bills also rose (see Table III), though they remained below the 8.027 percent high set on November 24. Additional foreign account selling emerged during this period, and the market also reacted negatively to Governor Robertson's remarks. There was a temporary improvement in bill rates toward the end of the week of December 12, when some commercial banks and state and local governments became purchasers and reinvestment demand from holders of maturing Government bonds also emerged. The rally was brief, however, and the market resumed its decline following the weekend. The weaker tone continued until good investor interest emerged on December 18, and participants also interpreted Dr. Burns' testimony in an optimistic light. Average issuing rates declined on both the three- and six-month bills in the auction held on Friday, December 19, giving a further lift to the market.

Over the following holiday-shortened week, bill rates moved irregularly higher, as reinvestment demand from maturing tax anticipation bills proved somewhat disappointing and the market faced the monthly auction. At this auction held on Tuesday, December 23, the average issuing rate on the new nine-month bills was set at a record 7.801 percent but the rate on the new twelve-month bills was slightly below the high established in November (see Table III). Rates on outstanding bills edged upward over the remainder of the week, and then rose sharply following the weekend when substantial investor selling developed. Reflecting the pressures in the market, average issuing rates on the new three- and six-month bills jumped 29 basis points on December 29 from the previous auction and reached all-time highs. The higher bill rates attracted substantial investor interest, and rates improved at the close of the month.

OTHER SECURITIES MARKETS

The corporate bond market was still in the doldrums at the start of December and, when three slow-moving recent issues were released from price restrictions, the upward yield adjustments ranged as high as 40 basis points. On December 2, Pacific Telephone and Telegraph Company marketed $150 million of Aaa-rated debentures at a yield of 9.10 percent, the first Aaa-rated issue ever to reach a 9 percent level. The debentures quickly sold out on the first day. Small investors were the chief buyers of these bonds, which have five-year call protection, but some institutions also evinced interest in this offering. Crossing the 9 percent mark was apparently the stimulus that the market needed at the time, and the resulting rally extended into the succeeding week. Immediately following the telephone offering, record returns were also made available on lower rated issues, and underwriters were able to move these quickly as well. By December 4, underwriters began to price new issues more aggressively and investor reception remained quite favorable. Thus, a double A-rated issue priced to yield 8.825 percent was about 90 percent sold on the first day.

The rally in corporate bonds soon ended, with investor resistance to a new utility issue developing on December 10. Several public statements concerning the tenacity of inflationary pressures contributed to the cautious market tone which continued into the week of December 19. Postponements of some scheduled offerings occurred during this period, and yields on the new issues which were marketed rose though they remained below the highs of early December. The corporate bond market registered some gains following Dr. Burns' testimony on December 18, and showed some additional modest improvement over the remainder of the month when activity was very light and no additional issues of any consequence were marketed.

Rates on tax-exempt bonds rose steadily over the first half of the month. Several new A-rated issues were priced to yield well over 7 percent, and a triple A-rated offering provided a record 6.60 percent return. *The Weekly Bond Buyer's* index of the average yield on twenty municipal bonds rose from 6.58 percent on November 27 to a new high of 6.90 percent on December 18. Once again there were a number of postponements, due to statutory interest-rate ceilings and voluntary withdrawals, as this market experienced the effects of sizable tax selling and the continuing low level of commercial bank participation. Moreover, in the short-term tax-exempt area, the Department of Housing and Urban Development had to pay more than $900,000 in placement fees to underwriters in order to sell $317.9 million of local renewal project notes for which the bids exceeded the 6 percent interest ceiling. An additional $1.7 million was sold within the ceiling, resulting in an effective cost including the subsidy of about 6.45 percent. A month earlier the cost had been 5.49 percent for similar notes, which needed no subsidy.

The tone of the municipal bond market improved considerably after midmonth, however, and on December 18 a $125 million issue of State of Pennsylvania bonds was aggressively bid for and oversubscribed by investors. The 5.90 to 7.25 percent yield on the $75 million Aa-rated portion of these serial bonds was estimated to be, on average, some 20 basis points higher than the previous record on a comparable offering earlier in the month. However, the yields on the remaining $50 million portion rated A-1 were lower than those on a similarly rated issue a week before. Reflecting the better market tone, the *Bond Buyer's* index for December 24 declined for the first time in seven weeks to 6.79 percent, a drop of 11 basis points over the week, and remained at this level on December 31.

PERSPECTIVE '69

Each January this Bank publishes *Perspective,* a brief, informative review of the performance of the economy during the preceding year. This booklet is a layman's guide to the economic highlights of the year. A more comprehensive treatment is presented in our *Annual Report,* available in March.

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Money Creation in the Euro-Dollar Market— A Note on Professor Friedman's Views

By FRED H. KLOPSTOCK*

Approximately a dozen years have passed since a few European banks began making a market for dollar-denominated deposits, which came to be called the Euro-dollar market. In that short time the market has attained a size of substantially more than $30 billion and has become the major channel for international short-term capital movements. The market's emergence and rapid expansion have fascinated many observers of the international financial scene, and a large number of analytical studies on its origins, evolution, and functioning have been published in recent years. Yet the market remains shrouded in mystery. As Federal Reserve Board Chairman Martin remarked not long ago, we do not fully understand the "wiring" of the Euro-dollar market. This is not entirely surprising. By any standard the market, though sophisticated, is still quite young. Its growth has been too recent to permit a full grasp of its workings. Moreover, governments and central banks have not yet developed the comprehensive statistical system required for a complete understanding of the intricate linkages between the market and the flow of international funds. While much is being done to fill data gaps, we remain ignorant of many aspects related to the ultimate origin and end use of funds handled by the market. This absence of basic data has given rise to many misunderstandings about its workings.

These misconceptions and many unresolved questions about the nature of the market are now catching the attention of some prominent members of the academic profession. Several have recently tried to supply explanations of what the Euro-dollar market is all about. One of the latest efforts comes from a leading authority on money matters, Professor Milton Friedman of the University of Chicago. In a recent paper,[1] he states that the "market is the latest example of the mystifying quality of money creation to even the most sophisticated bankers, let alone other businessmen", and notes that it is "almost complete nonsense" to explain the source of Euro-dollar deposits by pointing mainly to United States balance-of-payments deficits, past and present. Euro-dollars, he says, are created in the same way as American banks' deposit liabilities—"their major source is a bookkeeper's pen". He identifies the key to understanding the Euro-dollar market as the fact that "Euro-dollar institutions are part of a fractional reserve banking system", very much like Chicago banks. According to Professor Friedman, the failure to recognize "the magic of fractional reserve banking" is the chief source of misunderstanding about the Euro-dollar market.

Many of Professor Friedman's propositions confuse what is possible with what has happened in fact. Although in theory credit and deposit creation in the United States banking and Euro-dollar systems might be postulated to be similar, in actual practice the forces behind monetary expansion in the two systems differ in many important respects. In Professor Friedman's exposition these differences are passed over lightly or not mentioned at all. Metaphors such as "the magic of fractional reserve banking" and deposit creation by "a bookkeeper's pen", though perhaps useful as expository devices for explaining multiple credit and deposit creation in the United States banking system, do not enhance our understanding of monetary processes in the Euro-dollar market.

Applying the standard textbook treatment of credit and deposit creation to the Euro-dollar system is, of course, tempting. The lenders in the Euro-dollar market are commercial banks and like any system of banks should be capable of multiple credit and deposit expansion. But upon reflection it is apparent that Euro-banks (as we will call banks participating in the Euro-dollar market) bear a much closer resemblance to such financial intermediaries as savings and loan associations. Like these intermediaries, Euro-banks as a group can expect only a small fraction of their loans and investments to return to them as deposits;

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[1] "The Euro-Dollar Market: Some First Principles", *The Morgan Guaranty Survey* (October 1969), page 4 ff.

the deposit leakage from Euro-banks, as from nonbank intermediaries, is massive, while leaks from the American commercial banking system in the form of increases in the nonbank public's holdings of coin and currency are quite limited and fairly predictable. Although Professor Friedman seems to recognize this in principle, he persists in suggesting that a "bookkeeper's pen" is the major source of Euro-dollars as it is of the liabilities of United States banks. One might say that, because of the very large deposit leakages from the Euro-dollar system, the fountain pens of bookkeepers employed by Euro-banks run out of ink very quickly. It is evident that an explanation for the phenomenal rise of Euro-dollar liabilities must lie in monetary processes other than deposit creation in, and by, the Euro-dollar system.

What then specifically are the differences between the deposit expansion processes in the United States banking and Euro-dollar systems? Perhaps the most important difference is this: When an American bank—say, in Chicago—acquires dollars and uses the resulting excess reserves to make new loans, the loan proceeds typically wind up in deposits in other American banks, while it acquires in its turn some of the deposits generated by loans made by other banks. But, when Euro-dollars are loaned by a Euro-bank, the loan proceeds rarely show up as deposits in other Euro-banks. In the United States, as borrowers disburse loan proceeds, the recipients have virtually no choice (and actually no desire) but to redeposit them in the same or another American bank which, as a result of the attendant reserve gains, may find itself in a position to make additional loans and investments. The banks' ability and willingness to expand their asset portfolios depend, of course, also on the public's demand for bank deposits and on asset yields. Yet, in general, net reserve injections into the United States banking system tend to result in successive additions to outstanding bank credit though at a diminishing scale because each bank, as it obtains additional deposits, must retain some portion of its corresponding reserve gains in its required reserves. The distinguishing characteristic of United States banks is that, taken together, they do not lose cash reserves as they expand their outstanding credit and deposits, except to the modest extent that recipients of funds choose to add to their currency holdings rather than to redeposit these funds in their own bank accounts.

Euro-banks as a group, on the other hand, cannot count on recapturing more than a relatively small fraction of their loan proceeds. As Euro-dollar borrowers spend the loan proceeds, the banks participating in the market, taken together, tend to lose most of the dollar balances employed in loan extensions. This becomes immediately evident if we look at a typical asset portfolio of a Euro-bank. Currently, a very large and often dominant portion of the assets of Euro-banks consists of deposits with United States banks' overseas branches which pass most of the funds on to their head offices. Deposits taken on by the branches for this purpose are rarely returned to the Euro-dollar market, because the head offices of American banks and their borrowers employ virtually all these funds in the United States.

Another sizable portion of a typical Euro-bank's asset portfolio consists of dollar deposit placements in other foreign banks, including banks in Latin America and Asia, which bid for these funds to finance various business transactions. For the most part, these banks utilize Euro-dollar credit lines for financing their customers' payments obligations to the United States and third countries, the loan disbursements in both cases being typically credited to accounts in American rather than in Euro-banks. To an indeterminate extent, the banks sell the dollars to obtain those currencies that their customers require. But, even if the loans are denominated in dollars, the borrowers or their payees often sell the loan proceeds in the foreign exchange market in exchange for local or third-country currencies. Few, if any, of the proceeds of such credits are redeposited by the borrowing banks or their clients in the Euro-dollar market.

The same observation applies to the funds underlying other components of Euro-banks' asset portfolios, such as loans and investments denominated in the banks' own or third currencies. Euro-dollars borrowed for use in foreign currency loan markets or for financing investments in local money markets generally do not reappear in Euro-bank accounts unless the purchaser is one of the central banks that regularly shift reserve gains to the Euro-dollar market. One major characteristic of Euro-dollar banking for which there is no ready analogy in the American banking system is that balances placed in the market are continuously funneled into the foreign exchange market.

It is true that in virtually all Euro-banks' asset portfolios there are loans to European borrowers of the type described by Professor Friedman. In his article, he uses the example of a dollar loan by a London bank to a firm, called U.K. Ltd., which employs the loan proceeds to purchase timber from Russia. Suppose, says Professor Friedman, "Russia wished to hold the proceeds as a dollar deposit" in another bank in London. This could occur if Russia's foreign trade bank acquires these dollars from the timber exporter and then deposits them with one of its London correspondent banks. Similarly, foreign central banks may acquire Euro-dollar loan proceeds in the foreign exchange market and redeposit them in the

Euro-dollar market. On occasion, notably during speculative upheavals, some central banks have been known to purchase sizable balances originating in the Euro-dollar market and to reroute them through their own banking systems into the market. However, these and other examples of recaptures by Euro-banks of Euro-dollar loan proceeds are no more than exceptions to the general rule that in the aggregate only a small fraction of Euro-bank loan proceeds find their way to other Euro-banks.

A full understanding of the difference between the deposit expansion processes of the two systems hinges on the fact that deposit liabilities of American banks serve as the principal means of payment while those of Euro-banks do not. Few Euro-banks provide dollar checking facilities. Only a small proportion of Euro-bank deposits consists of call and overnight deposits. Although these latter resemble demand deposits, their principal function is to provide their owners, virtually all banks, with quickly realizable reserves on which to fall back if they have to make unexpected dollar payments at American banks. Call and overnight deposits held in Euro-banks by nonbanks are quite small. In fact, most of the deposit liabilities of Euro-banks are vis-à-vis other banks rather than nonbanks. Many Euro-banks are essentially time deposit intermediaries in interbank deposit markets.

Liabilities of the Chicago banks in Professor Friedman's example, on the other hand, consist for the most part of the public's demand deposits, of which the major function is to serve as a means of payment. Individuals, corporations, financial institutions resident in Chicago, and innumerable out-of-town banks as well as Federal, state, and local government units find it convenient or even necessary to maintain demand deposit accounts with Chicago banks and to hold continuously adequate minimum balances. No similarly compelling reasons for maintaining deposit accounts in Euro-banks exist for individuals and corporations abroad, let alone banks.

Since its demand deposit liabilities serve as a means of payment and to compensate banks for a variety of services, the United States banking system in the aggregate may expect that the deposits created as it expands credit will stay in the system—again excepting some drain into coin and currency holdings of the nonbank public. The size of the American banking system may well remain stable even if the public should prefer to shift deposits to savings banks, savings and loan associations, or other nonbank financial intermediaries which merely rechannel such deposits when acquiring investments and making loans.

Euro-banks in the aggregate, on the other hand, can expect no more than a modest rise in their deposit liabilities as a result of their dollar loans and must rely on offering more attractive terms to holders of liquid assets than are available elsewhere if they wish to expand their dollar liabilities. United States banks, while by no means immune to the public's preferences regarding the form in which it wishes to hold its assets, are much less dependent for deposit growth on the terms and conditions of the depository facilities that they offer to the public.

Both United States banks and Euro-banks incur deposit liabilities which are a multiple of their cash reserves. In this sense, both systems engage in fractional reserve banking, as pointed out by Professor Friedman. But this characteristic is common to all financial intermediaries, whether United States commercial banks, savings banks, life insurance companies, or Euro-banks. These institutions convert all but a small part of the funds they receive into earning assets. Consequently, their cash reserves are only a fraction of their liabilities. This fact alone does not explain the striking differences in their credit-creating powers. Keeping fractional cash reserves is not the same as engaging in multiple credit expansion.

The major question raised by Professor Friedman that still remains to be explained is how Euro-banks—notwithstanding their inability to recapture as additional deposits more than a small fraction of the proceeds of their loans and investments—have been able to generate in fairly short order very impressive increases in their dollar liabilities. The obvious answer is: By offering more attractive investment facilities and interest rates than provided by money markets and financial institutions in the United States and elsewhere, Euro-banks have been able to divert to themselves the local-currency cash reserves of innumerable banks and nonbanks in many parts of the world. Indeed, in recent years they have drained huge balances from major foreign money and loan markets. In addition, several central banks have for reasons of domestic and international monetary policy placed large parts of their monetary reserves in Euro-banks.

As foreign banks and nonbanks convert their own currencies into dollars in order to be able to make deposits with Euro-banks, and as central banks place monetary reserves in the market, they draw on dollars currently or previously accumulated abroad in consequence of our balance-of-payments deficits. In this particular sense, those who argue that the source of Euro-dollar deposits is "partly U.S. balance-of-payments deficits" and "partly dollar reserves of non-U.S. central banks" are correct.

This argument is valid in another sense: much of the liquidity of banks and nonbanks that has found a haven in the Euro-dollar market can be directly traced to balance-of-payments surpluses abroad, which are a counterpart of our deficits. This is also true of the reserve gains that a growing number of central banks are depositing in Euro-banks. Other central banks, as they have accumulated dollar balances far in excess of amounts they desire to hold, have shifted these excess reserves to the Euro-dollar market through sales of dollar balances at advantageous swap rates. The buyers have been their own commercial banks which have employed these funds for deposit and loan operations in the Euro-dollar market. In all these cases, a close relationship exists between our balance-of-payments deficits and additional Euro-dollar deposits.

In summary, the traditional expository devices used in analyzing monetary processes in the United States are ill suited for the task of explaining monetary expansion in the Euro-dollar market. The sources, purposes, and functions of dollar deposits in Chicago banks and Euro-banks have little in common. Dollars deposited in the Euro-dollar market are, except for a small proportion, created by American banks rather than Euro-banks.

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